

Work Order ID 140756***140756***

Page 1

Monday, January 18, 2016 10:01:47 AM

Item ID: D3456-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Washer
Start Date: 1/18/2016 Start Qty: 75.00 ***75*** Cust Item ID:
Required Date: 1/18/2016 Req'd Qty: 75.00 ***75*** Customer:
Reference:

Approvals: Process Plan: MLJ Date: JAN 18 2016 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3456	Rev A								

100 PURCHASING 0.00 **DAS 13 9-89** JAN 21 2016 75
100
Purchasing Memo 0.00
Purchasing Issue P/O: 3/082 P/N: 91525A120 per Dwg D3456Possible
Supplier: McMaster-CarrMaterial release note is required

110 Receive & Inspect for Damage & Mat'l Certs 0.00
110
Packaging Memo 0.03
Packaging Ensure Material Release Note is attached 75x Sp/6-01-25

120 QC6- Inspect dimensions to drawing 0.00
120
QC Memo 0.00 75 **DAS 38 9-89** JAN 25 2016
Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER :							

Work Order ID 140756***140756***

Page 2

Monday, January 18, 2016 10:01:47 AM

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Required Date: 1/18/2016 Req'd Qty: 75.00 ***75*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <i>81038</i>	0.00							
130									
Packaging	Memo	0.01							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.13							
Quality Control									

75x **DAS 26 9-89** **JAN 25 2016**

MLJ **JAN 26 2016**

MLJ **JAN 26 2016**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Monday, January 18, 2016 10:01:52 AM

Page 1

Work Order ID: 140756

140756

Parent Item: D3456-1

D3456-1

Parent Item Name: Washer

Start Date: 1/18/2016

Required Date: 1/18/2016

Start Qty: 75.00

Required Qty: 75.00

Comments: IPP A05.10.03New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
91525A120		Purchased		No		100	Each	0.0000	1	75			
91525A120									**				

washer

75x 5060125

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

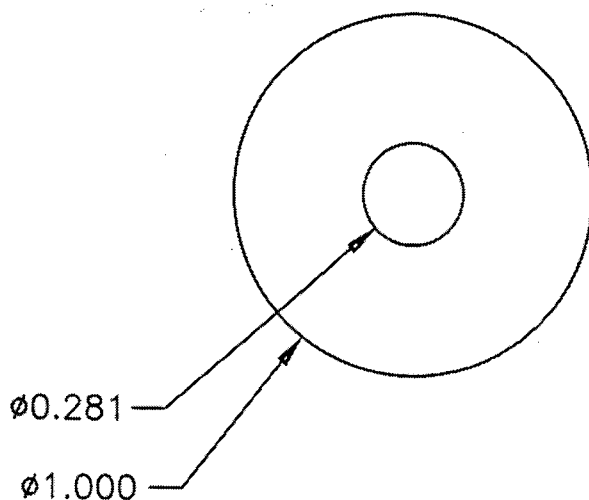
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																



DESIGN CP	DRAWN BY CP	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED H	APPROVED H	DRAWING NO. D3456	REV. A SHEET 1 OF 1
DATE 05.09.01		TITLE WASHER	SCALE 2:1
A	05.09.01	NEW ISSUE	

RELEASED
05-09-06-18

SPECIFICATION CONTROL DRAWING



D3456-1 WASHER

- 1) MATERIAL: 316 STAINLESS STEEL, 0.050" THICK
- 2) MAY PURCHASE McMASTER-CARR P/N 91525A120
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

81-10-91
C-14056M-1
16-09-01
14056M-1
16-09-01
14056M-1
16-09-01

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DART
AEROSPACE

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31082**

Purchase Order Date 1/21/2016

PO Print Date 1/21/2016

Page Number 5 of 6

Order From :

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 330 995 5500

Ship To Contact

Ship To Phone

Ship Via: Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

13 91525A120

washer

1/25/2016

Yes

1/25/2016

75.00

Each

\$0.27

\$19.98

AS PER DWG D3456 REV. A
B140756

Sp/6-01-25

Line Total:

\$19.98

14 6605K56

HOOK AND LOOP TIE

1/25/2016

Yes

1/25/2016

10.00

Each

\$2.78

\$27.78

AS PER DWG D3551 REV. A
B140754
2 PKS OF 5 PCS

Line Total:

\$27.78

Note:

1/21/2016

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO31082

Order Placed By
Chantal Lavoie

McMaster-Carr Number
5981177-02

Page 1 of 1

01/21/2016

Line	Product	Ordered	Shipped
1	1931T47 Extra-Soft Grip Cotton Twine, Polished, 0.116" Diameter, 115 lb Break Strength, 320' Ball	6 Each	6
2	46475A23 Sanding Belt for Stainless Steel & Hard Metals, 80 Grit, 1-1/8" Wide, 21" Long	6 Each	6
3	46475A23 Sanding Belt for Stainless Steel & Hard Metals, 120 Grit, 1-1/8" Wide, 21" Long	6 Each	6
4	2304A11 Mitutoyo Long-Reach Micrometer, 6" Throat Depth, 0-1" Measuring Range, 118-129	1 Each	1
5	2901A178 Black-Oxide High-Speed-Steel Jobbers' Drill Bit, Wire Gauge 7, 3-5/8" Oal, 2.13" Drill Depth, 135 Degree Point	12 Each	12
6	47865K21 Brass Ball Valve, 1/4" NPT Female Connections	2 Each	2
7	7397A38 Hex Power Bit, 1/4" Hex Shank, 3/16" Hex Size, 2" Length	5 Each	5
8	7397A41 Hex Power Bit, 1/4" Hex Shank, 1/4" Hex Size, 2" Length	5 Each	5
9	54705A51 1/2" Square Drive Hex Bit Impact Socket, 1/4" Size, 3-1/4" Overall Length, Black Finish	2 Each	2
10	7397A37 Hex Power Bit, 1/4" Hex Shank, 5/32" Hex Size, 2" Length	5 Each	5
12	91525A120 Type 316 Stainless Steel Flat Washer, Oversized, 1/4" Screw Size, 0.281" ID, 1.000" OD, Packs of 25	3 Packs	3
13	6605K56 Hook and Loop Cable Tie, Flame Retardant, 24" Overall LG., 7" Max Bundle Diameter, Packs of 5	2 Packs	2

80/6-0-25